CLAIMS

1. A method of treating acute renal failure, multi-organ failure, early dysfunction of kidney transplant, chronic renal failure, kidney dysfunction, organ dysfunction, or wound healing, said method comprising delivering a therapeutic amount of a mixture hematopoietic stem cells and mesenchymal stem cells to a patient in need thereof.

2. The method of claim 1 wherein said hematopoietic stem cells and said mesenchymal stem cells comprise autologous cells.

3. The method of claim 1 wherein said hematopoietic stem cells and said mesenchymal stem cells comprise allogeneic cells.

4. The method of claim 1 wherein a ratio of said hematopoietic stem cells to said mesenchymal stem cells is optimized for the treatment of kidney dysfunction or other organ dysfunction.

5. The method of claim 4 wherein said stem cells are delivered to said patient in a ratio of about 0.1:1 to about 50:1 hematopoietic stem cells to mesenchymal stem cells.

6. A method of treating acute renal failure, multi-organ failure, early dysfunction of kidney transplant, chronic renal failure, kidney dysfunction, organ dysfunction, or wound healing, said method comprising delivering a therapeutic amount of pre-differentiated stem cells to a patient in need thereof;

wherein said cells are pre-differentiated *in vitro* into kidney- or other organ-specific cells.

7. The method of claim 6 wherein said cells are pre-differentiated into renal tubular cells, vascular endothelial cells or other kidney- or organ-specific cells.

8. A method of treating acute renal failure, multi-organ failure, early dysfunction of kidney transplant, chronic renal failure, organ dysfunction, or wound healing, said method comprising delivering a therapeutic amount of hemangioblasts to a patient in need thereof.

9. The method of claim 8 wherein said hemangioblasts comprise autologous cells.

10. The method of claim 8 wherein said hemangioblasts comprise allogeneic cells.

11. A composition for the treatment of acute renal failure, multi-organ failure, early dysfunction of kidney transplant, chronic renal failure, organ dysfunction, or wound healing, said composition comprising a therapeutic amount of hematopoietic stem cells and mesenchymal stem cells.

12. The composition of 11 wherein a ratio of said hematopoietic stem cells to said mesenchymal stem cells is optimized for the treatment of kidney dysfunction or other organ dysfunction.

13. A method of treating kidney dysfunction comprising delivering a therapeutic amount of non-transformed stem cells to a patient in need thereof.

14. A method of treating kidney dysfunction comprising delivering a therapeutic amount of genetically modified stem cells,

wherein renoprotective potency of said cells is augmented by genetic modification prior to administration to a patient in need thereof.

15. The method of claim 14 wherein said stem cells comprise hematopoietic stem cells.

16. The method of claim 14 wherein said stem cells comprise mesenchymal stem cells.

17. The method of claim 14 wherein said stem cells comprise non-hematopoietic pluripotent stem cells.

18. A method of treating kidney dysfunction comprising delivering a therapeutic amount of a stimulant of stem cell mobilization to a patient in need thereof;

wherein the stimulant mobilizes stem cells to the kidney.

19. Use of a therapeutic amount of hematopoietic stem cells and mesenchymal stem cells in the manufacture of a medicament for the treatment of acute renal failure, multi-organ failure, early dysfunction of kidney transplant, chronic renal failure or kidney disease, organ dysfunction, and wound healing.

20. The use of claim 19 wherein said stem cells comprise autologous cells.

21. The use of claim 19 wherein said stem cells comprise allogeneic cells.

22. The use of claim 19 wherein said stem cells are delivered to a patient in a hematopoietic to mesenchymal stem cell ratio that is optimized for the treatment of acute renal failure or other organ dysfunction.

23. The use of claim 22 wherein said stem cells are delivered to said patient in a ratio of about 0.1:1 to about 50:1 hematopoietic stem cells to mesenchymal stem cells.

24. Use of a therapeutic amount of pre-differentiated stem cells in the manufacture of a medicament for the treatment of acute renal failure, multi-organ

failure, early dysfunction of kidney transplant, chronic renal failure, organ dysfunction, and wound healing;

wherein said cells are pre-differentiated *in vitro* into kidney- or other organ-specific cells.

25. Use of a therapeutic amount of hemangioblasts in the manufacture of a medicament for treatment of acute renal failure, multi-organ failure, early dysfunction of kidney transplant, chronic renal failure, organ dysfunction, or wound healing.

26. The use of claim 25 wherein said hemangioblasts comprise autologous cells.

27. The use of claim 25 wherein said hemangioblasts comprise allogeneic cells.

28. Use of a therapeutic amount of non-transformed stem cells for the manufacture of a medicament for the treatment of acute renal failure, multi-organ failure, early dysfunction of kidney transplant, chronic renal failure, or wound healing.

29. The use of claim 28 wherein said stem cells comprise hematopoietic stem cells.

30. The use of claim 28 wherein said stem cells comprise mesenchymal stem cells.

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31. The use of claim 28 wherein said stem cells comprise non-hematopoietic pluripotent stem cells.

32. Use of a therapeutic amount of a stimulant of stem cell mobilization in the manufacture of a medicament for the treatment of kidney dysfunction or multi-organ failure;

wherein the stimulant mobilizes stem cells to the kidney.

33. Use of a therapeutic amount of a stimulant to augment the homing of hematopoietic stem cells to the kidney with acute renal failure or to other injured organs in multi-organ failure.

34. Use of a therapeutic amount of genetically modified stem cells for the manufacture of a medicament for the treatment of acute renal failure, multi-organ failure, early dysfunction of kidney transplant, chronic renal failure, or wound healing.

35. The use of claim 34 wherein said adult stem cells comprise hematopoietic stem cells.

36. The use of claim 34 wherein said adult stem cells comprise mesenchymal stem cells.

37. The use of claim 34 wherein said stem cells comprise non-hematopoietic pluripotent stem cells.